Toshio Miyata

Application No.: 10/089,789

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IN THE CLAIMS

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The following is the listing of the claims.

- 1-6. (Canceled).
- 7. (Previously presented) A carrier on which one or more biguanide agents have been immobilized, wherein the shape of the carrier is selected from membranous, fibrous, granular-shaped, hollow fiber-like, non-woven fabric-like, porous, and honeycomb-shaped carrier.
 - 8. (Canceled).
- 9. (Previously presented) A carrier comprising one or more biguanide agent immobilized thereon, wherein the carrier is a hemodialysis membrane.
 - 10-11. (Canceled).
- 12. (Previously presented) A peritoneal dialysate solution comprising one or more biguanide agent or pharmacologically acceptable salt thereof.
 - 13-14 (Cancelled).
- 15. (Previously presented) A method, for removing carbonyl compounds comprising contacting a carrier on which a biguanide agent has been immobilized, with one or more body fluid selected from one or more of blood, blood plasma and peritoneal dialysate, wherein the blood purification comprises one or more steps selected from blood filtration, blood filtration dialysis, blood adsorption, and blood plasma separation.
- 16. (Previously presented) The carrier of claim 7, wherein the biguanide agent is a compound selected from phenformin, metformin, buformin, and pharmacologically acceptable salts thereof.

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17. (Previously presented) The carrier of claim 7, wherein the carrier has a body fluid contact area that can be controlled by altering one or more parameter selected from thickness, surface area, diameter, length, shape, and size of the carrier.

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- 18. (Previously presented) The carrier of claim 7, wherein the biguanide agent is immobilized on the carrier by a reaction selected from physical adsorption, a specific biochemical binding reaction, ion binding, covalent bonding, or grafting.
- 19. (Previously presented) A peritoneal dialysate solution comprising the carrier of claim 7.
- 20. (Previously presented) The carrier of claim 9, wherein the biguanide agent is a compound selected from one or more of phenformin, metformin, buformin, and pharmacologically acceptable salts thereof.
- 21. (Previously presented) The peritoneal dialysate solution of claim 12, wherein the biguanide agent is one or more compound selected from phenformin, metformin, buformin, and pharmacologically acceptable salts thereof.
- 22. (Previously presented) The method of claim 15, wherein the biguanide agent is one or more compound selected from phenformin, metformin, buformin, and pharmacologically acceptable salts thereof.
- 23. (Previously presented) A carrier on which a biguanide agent has been immobilized, wherein the biguanide agent remains immobilized when contacted with blood, blood plasma or peritoneal dialysate.
- 24. (Previously presented) The carrier of claim 23, wherein the biguanide agent is selected from one or more of phenformin, metformin, buformin, and pharmacologically acceptable salts thereof.

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25. (Previously presented) The carrier of claim 23, wherein the carrier is selected from one or more of synthetic or naturally-occurring organic macro-molecular compounds, inorganic material and materials coated with polysaccharide(s) and synthetic polymer(s) thereof.

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- 26. (Previously presented) The carrier of claim 25, wherein the inorganic compounds are selected from one or more of glass beads, silica gel, alumina and activated charcoal.
- 27. (Previously presented) The carrier of claim 25, wherein the carrier is an inorganic material.
- 28. (Previously presented) The carrier of claim 25, wherein the carrier is a synthetic organic macro-molecular compound.
- 29. (Previously presented) The carrier of claim 25, wherein the carrier has a body fluid contact area that can be controlled by changing one or more parameters selected from thickness, surface area, diameter, length, shape, and size of the carrier.
- 30. (Previously presented) The carrier of claim 23, wherein the biguanide agent is immobilized on the carrier by a reaction selected from one or more of physical adsorption, a specific biochemical binding reaction, ion binding, covalent bonding, or grafting.
- 31. (Previously presented) A peritoneal dialysate solution comprising the carrier of claim 23.
- 32. (Previously presented) A method for removing carbonyl compounds comprising contacting the carrier of claim 23 with one or more body fluids selected from blood, blood plasma and peritoneal dialysate.

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33. (Previously presented) The method of claim 32, wherein the removal of the carbonyl compounds is carried out during *in vivo* or *ex vivo* blood purification.

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- 34. (Previously presented) A method for removing carbonyl compounds comprising contacting one or more biguanide agent with one or more body fluid selected from blood, blood plasma and peritoneal dialysate.
- 35. (Previously presented) The method of claim 34, wherein the biguanide agent is selected from one or more of phenformin, metformin, buformin, and pharmacologically acceptable salts thereof.
- 36. (Previously presented) The method of claim 34, wherein the removal of the carbonyl compounds is carried out during *in vivo* or *ex vivo* blood purification.
- 37. (Previously presented) The method of claim 34, wherein the biguanide agent is orally administered.
- 38. (Previously presented) The method of claim 34, wherein the biguanide agent is administered by injection.